Pathology Circular No. 5
September 1962

Fla. Dept. of Agr.
Div. of Plant Industry

ALTERNARIA LEAF SPOT OF PITTOSPORUM TOBIRA AIT. (ALTERNARIA SP.)

Edward K. Sobers

In June 1962, an apparently unreported disease of nonvariegated Pittosporum tobira Ait. leaves was submitted by plant inspector C. W. Hale for routine examination. The lesions, when observed in an early stage of development, closely resemble those caused by Cercospora pittospori Plak. (Triology 4: Plant Path. Cir. No. 4). Closer examination of the lesions, however, reveals a less angular, more diffuse and immarginate pattern. Isolations from the leaf spots yielded an unidentified Alternaria sp.

SYMPTOMS: First symptoms appear on the upper leaf surface as irregular, immarginate, diffuse, chlorotic areas measuring approximately .5 to 2 mm (Fig 1). These areas become distinctly circular, depressed, centers tan, margins dark brown; a yellow halo surrounding the lesion. The spots are usually 3-5 mm in diameter, although spots measuring 10-12 mm are not uncommon (Fig. II). When observed from the lower surface, the lesions are similar, but are brown throughout with slightly less depression in the center (Fig III).

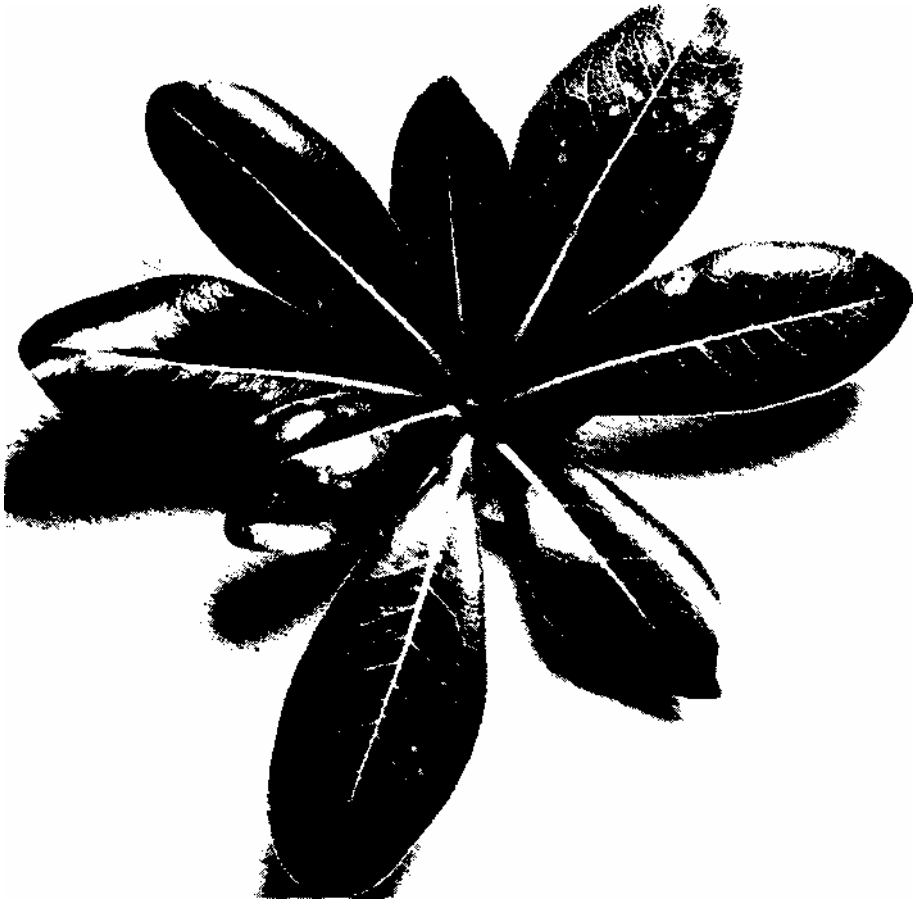

Fig. I— Leaves of nonvariegated Pittosporum tobira Ait. showing early alternaria leaf spot symptoms.

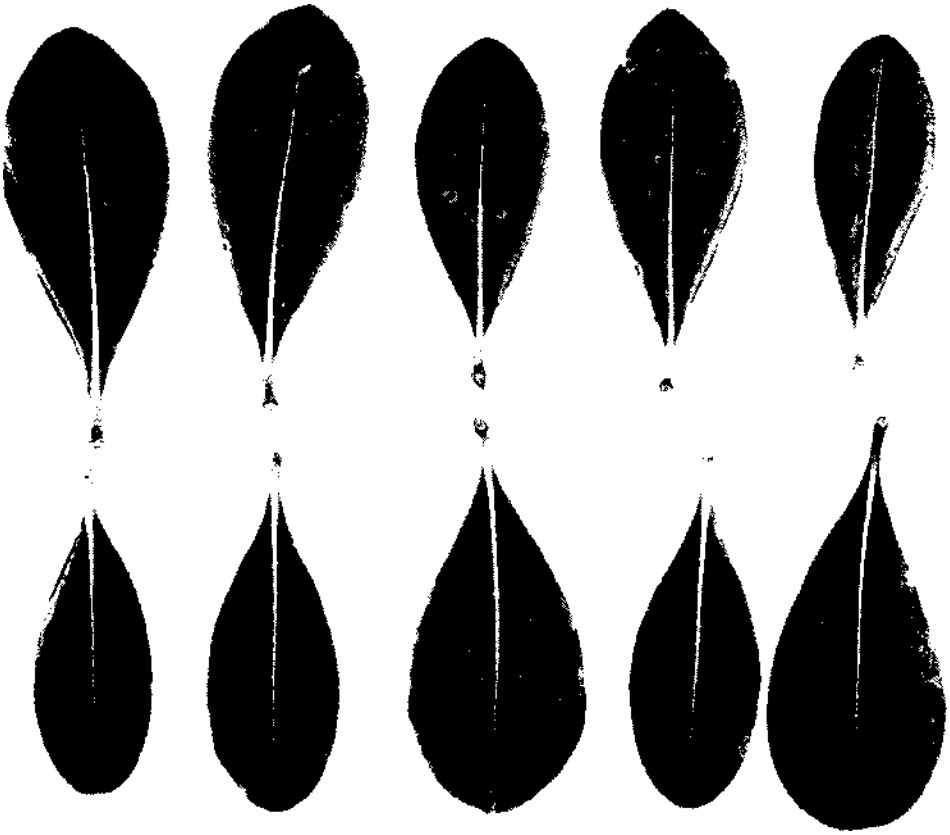

Fig. II.--Top row: Alternaria lesions on upper leaf surfaces of Pittosporum tobira Ait. Bottom row: Healthy leaves.

PATHOGENICITY: This disease has been successfully reproduced experimentally by spray inoculation of 8 apparently healthy nonvariegated plants. The organism was reisolated from the resulting leaf lesions and is comparable in all respects to the fungus originally isolated.

Preliminary results indicate that the variegated form of P. tobira is also susceptible to this Alternaria sp.

CAUSAL ORGANISM AND INFECTION CYCLE: The exact species of Alternaria involved has not been determined because of the need to carry out cross inoculation studies with known, closely related organisms. There are no characteristic fruiting structures produced by the organism which would serve to identify it in the field.

Since this disease has been under observation for only a relatively short period of time, there is no information available at this time regarding the infection cycle. It is presumed, however, that it will follow a pattern somewhat similar to Cercospora pittospori Plak.

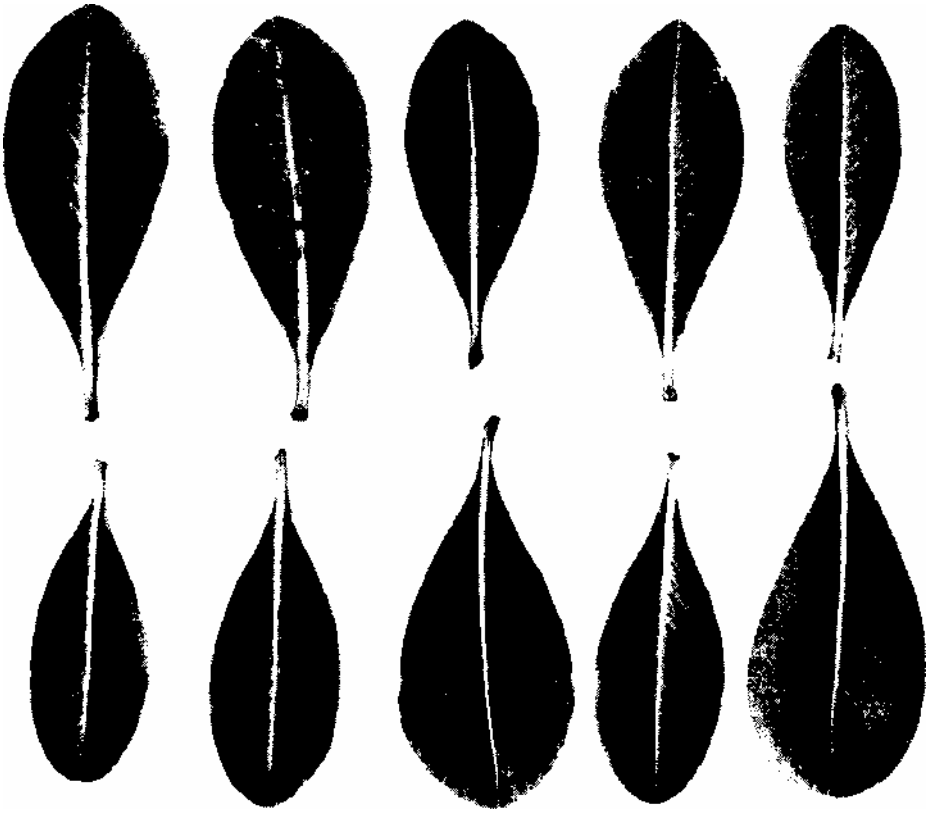

Fig. 111. -- Top row: Alternaria lesions on lower leaf surfaces of Pittosporum tobira Ait. Bottom row: healthy leaves.

DISTRUBUTION AND CONTROL: At present the division has no information as to the distribution of this disease or how serious a problem it might present. The few cases reported have been in areas around Tampa. The fact that the disease has gone unobserved could indicate one of three possibilities: 1) It is a recently introduced problem; 2) The disease has gone unnoticed because of its similarity to angular leaf spot; or 3) |t is a relatively minor and unimportant problem.

The division has no specific recommendations for this disease other than normal sanitation procedure, such as destruction of affected leaves and all plant parts on the soil around the plants.